

Claims

- [c1] A system for monitoring the dispensing of a paste from a reservoir in response to the application of pressure on said paste from a piston, comprising:
a position transducer for generating a displacement signal representative of the position of said piston; and
analysis means responsive to said displacement signal for detecting the rate of displacement of said piston.
- [c2] A system according to claim 1, in which said analysis means compares said rate of displacement with at least one reference rate.
- [c3] A system according to claim 2, in which said analysis means compares said rate of displacement with an upper reference rate limit and with a lower reference rate limit.
- [c4] A system according to claim 2, in which said analysis means detects whether said rate of displacement has exceeded said at least one reference rate for a time greater than a threshold time limit.
- [c5] A system according to claim 2, in which said analysis means detects whether said rate of displacement has exceeded said at least one reference rate for a time less

than a spike time limit.

- [c6] A system according to claim 1, in which said analysis means comprises a linear variable differential transformer having a core that translates in accordance with said piston.
- [c7] A system according to claim 6, in which said analysis means compares said rate of displacement with at least one reference rate.
- [c8] A system according to claim 7, in which said analysis means compares said rate of displacement with an upper reference rate limit and with a lower reference rate limit.
- [c9] A system according to claim 7, in which said analysis means detects whether said rate of displacement has exceeded said at least one reference rate for a time greater than a threshold time limit.
- [c10] A system according to claim 7, in which said analysis means detects whether said rate of displacement has exceeded said at least one reference rate for a time less than a spike time limit.
- [c11] A system for monitoring the dispensing of a paste from a reservoir in response to the application of pressure on said paste from a piston, comprising:

a position transducer for generating a displacement signal representative of the position of said piston;
analysis means responsive to said displacement signal for measuring a compression signal comprising the difference in said displacement signal when a reference pressure is applied and when said reference pressure is released.

- [c12] A system according to claim 11, further comprising means for applying an input pressure signal to said piston when flow of said paste is blocked and means for measuring a compression signal responsive to said input pressure signal.
- [c13] A system according to claim 12, in which said input pressure signal is a square wave.
- [c14] A system according to claim 11, in which said input pressure signal is the termination of pressure at the end of an application sequence.
- [c15] A system according to claim 11, in which said analysis means compares said compression signal with a constant reference.
- [c16] A system according to claim 11, in which said analysis means compares said compression signal with a variable reference that varies in proportion to said position of

said piston.

- [c17] A system according to claim 11, further comprising means for applying an input pressure signal to said piston when flow of said paste is blocked and means for measuring a compression signal responsive to said input pressure signal.
- [c18] A system according to claim 11, in which said analysis means comprises a linear variable differential transformer having a core that translates in accordance with said piston.
- [c19] A system according to claim 18, in which said input pressure signal is the termination of pressure at the end of an application sequence.
- [c20] A system according to claim 18, in which said analysis means compares said compression signal with a constant reference.